

Killing Rumors

Killing Rumors: A 50-Year Old Mathematical Formula Is Key Tool in Managing Crisis Communications

by [Helio Fred Garcia](#)

Introduction

Every company and organization, at some time or other, faces a crisis that includes rumors. How one deals with rumors, especially in the critical early phases of a crisis, can determine the outcome of the crisis.

Most crisis communications management is pattern recognition, and rumors follow predictable patterns. In fact, there's a formula that describes how rumors work and that provides a very useful tool for understanding how to kill false rumors and how to diminish the damage caused by true or partially true rumors.

The formula has gone largely ignored by the PR world, which is a shame. I have taught the formula for 12 years in my crisis communications course at New York University, and have used it in my crisis communications practice. It forms a key part of my book on crisis communications that was published in 1999 by the American Association of Advertising Agencies.

In addition to its usefulness in helping to kill rumors, I have found that the formula also provides a certain degree of emotional comfort among those who are on the receiving end of a rumor and who feel that an injustice is being committed against them. In all my years of practice I've never encountered a client - whether a CEO, a lawyer, an engineer, an investment banker - who wasn't relieved to discover that there's a mathematical formula for dealing with rumors. Once they buy into the concept, clients are very willing to organize their actions and communications to influence the variables that drive a rumor. They feel far more in control of their destiny than before they began using the formula. That confidence is well placed.

Research on Rumors

During World War II two Harvard University psychologists - Gordon W. Allport and Leo Postman - studied wartime rumors and came up with a mathematical formula that described the way a rumor works and suggested ways to control or eliminate a rumor. They published their findings in a 1947 book, *The Psychology of Rumor*. Allport and Postman define a rumor as follows:

A rumor, as we shall use the term, is a specific (or topical) proposition for belief, passed along from person to person, usually by word of mouth, without secure standards of evidence being present.

The implication in any rumor is always that some truth is being communicated. This implication holds even though the teller prefaces his tidbit with the warning, 'it is only a rumor, but I heard...'

The most important element of this definition for our purposes is that a rumor exists in the absence of secure standards of evidence but is taken by the recipient to be true. If we accept this point, then it stands to reason that in the presence of secure standards of evidence a rumor will not flourish. Allport and Postman elaborate:

The central feature of our definition is its insistence that rumor thrives only in the absence of 'secure standards of evidence.' This criterion marks off rumor from news, distinguishes 'old wives' tales' from science, and separates gullibility from knowledge. True, we cannot always decide easily when it is that secure standards of evidence are present. For this reason we cannot always tell whether we are listening to fact or fantasy.

Allport and Postman give a compelling, if now somewhat out of date, example of how a rumor can be prevented by providing verifiable factual information before rumors have a chance to start:

Rumors thrive on the lack of news. The almost total absence of fear-inspired rumors in Britain during the darkest days of the blitz was due to the people's conviction that the government was giving full and accurate news of the destruction and that they, therefore, knew the worst. When people are sure they know the worst, they are unlikely to darken the picture further by inventing unnecessary bogies to explain their anxieties to themselves.

The authors note that the U.S. Office of War Information in World War II maintained the following requirement:

Rumor flies in the absence of news. Therefore, we must give the people the most accurate possible news, promptly and completely.

A more recent example of pre-empting rumors by providing factual information was the Pentagon's media strategy during Operation Desert Storm in 1991. Unlike previous military operations in Grenada and Panama, where there was a news blackout, in the Persian Gulf War the military conducted daily briefings, sometimes from both the war zone and the Pentagon on the same day. As a result, there was a continuous stream of factual information that tended to crowd out reporters' attempts to stir up controversy or to second guess the military strategy.

It is important to note that this strategy did not involve giving reporters unlimited (or even limited!) access to the battlefield or to answer each of their questions. Rather, the military spoke over the media directly to the American public and succeeded in maintaining public confidence and support during the war. On the first night of the fighting Secretary of Defense Richard Cheney set the tone when he said, "We understand your [the media's] need for information on what will happen next, and we are well aware of our obligation to keep the American people informed." Note that Secretary Cheney saw these as two separate phenomena. The press is focused on predicting the future, which for security reasons the Pentagon did not help with. But the Pentagon also recognized the need to keep the American people informed, and they did. They did so, moreover, by defining the issues and controlling the communications agenda, by keeping focused on what they wanted the public to know, and by reinforcing key messages. In short, they followed the crisis communications procedures described in the last chapter. And they prevented the formation and spread of potentially damaging rumors by pre-emptively communicating factual information.

Reticent Corporate Managers Take Note:

When people are sure they know the worst, they are unlikely to darken the picture further by inventing unnecessary bogies to explain their anxieties to themselves.

Gordon W. Allport and Leo Postman, *The Psychology of Rumor*, 1947

In this case the Pentagon recognized one of Allport and Postman's key observations: "Unguided by objective evidence, most people will make their prediction in accordance with their subjective preference." The corollary to this, of course, is that in the presence of objective evidence, it is possible for people to move beyond their subjective preference, even their subjective fears.

For crisis communicators, the challenge is to help clients summon the courage to disclose what is necessary to provide objective evidence that helps people move beyond their subjective preferences. The good news is that Allport and Postman provide a way to do so.

Controlling a Rumor

The two factors that influence a rumor are its importance to the listener and its ambiguity. In order to control a rumor one must either diminish the level of importance a once assigns to the rumor if true, or eliminate the ambiguity around the factual basis of the rumor. Eliminating ambiguity is particularly important if the rumor is in fact completely false. But even where the rumor has some mixture of truth and fiction, eliminating ambiguity

about the fiction can help control the rumor and ground it in reality. Once an unambiguous reality is established, it may be possible to reduce the level of importance in the content of the rumor, thereby diminishing the rumor's transmission to others.

Allport and Postman summarize these two factors, importance and ambiguity:

Rumor travels when events have importance in the lives of individuals, and when the news received about them is either lacking or subjectively ambiguous. The ambiguity may arise from the fact that the news is not clearly reported, or from the fact that conflicting versions of the news have reached the individual, or from his incapacity to comprehend the news he receives.

The ambiguity can further arise when a company's credibility is weak; when people have become conditioned to distrust what the company says, so that even when it is telling the truth people are disinclined to believe it. Allport and Postman observe, "Most important of all, ... rumor will race when individuals distrust the news that reaches them." This is a good reason for companies, before things go wrong, to invest in a reputation for credibility.

Allport and Postman elaborate how the two factors of importance and ambiguity work together, and note that there is a mathematical relationship:

THE BASIC LAW OF RUMOR

The two essential conditions of importance and ambiguity seem to be related to rumor transmission in a roughly quantitative manner. A formula for the intensity of rumor might be written as follows:

$$R \sim i \times a$$

In words this formula means that the amount of rumor in circulation will vary with the importance of the subject to the individuals concerned times the ambiguity of the evidence pertaining to the topic at issue. The relation between importance and ambiguity is not additive but multiplicative, for if either importance or ambiguity is zero, there is no rumor. Ambiguity alone does not sustain rumor. Nor does importance.

So what does this mathematical model mean? In fact, it provides a very powerful technique to reduce the impact of a rumor. Because the relationship between importance and ambiguity is multiplicative, an incremental decline in either can result in a greater than incremental decline in the scope of the rumor.

Here are some ways to think about the model quantitatively. Again, note the elements of the Allport and Postman Model of Rumor Dynamics:

$R \sim i \times a$, where:

R is the reach, intensity, duration, and reliance on a rumor;
i is the importance of the rumor to the hearer or reader, if true; and
a is the level of ambiguity or uncertainty surrounding the rumor.

In other words, the reach, intensity, duration, and reliance on a rumor is roughly equivalent to the importance one attaches to the rumor if true, multiplied by ambiguity surrounding the rumor, especially surrounding its denial. Note that simply denying a rumor does not eliminate ambiguity; it may even increase it. Rather, eliminating ambiguity requires giving affirmative factual reasons for not relying on the rumor.

Here's how the math works. Assume a scale of zero to ten, zero being non-existent and ten being extreme - what John McLaughlin of TV's The McLaughlin Group calls "metaphysical certitude." If both importance and ambiguity are high, say ten, the scope of the rumor will be quite strong:

$$\begin{aligned} R &\sim i \times a \\ R &\sim 10 \times 10 \\ R &\sim 100 \end{aligned}$$

In other words, when both the importance and ambiguity are at their highest, ten, the scope of the rumor will be at its highest, 100. But reduce just one of the factors by a bit, and the scope of the rumor declines considerably. Assume that importance remains high, ten, but that ambiguity can be reduced to three. Apply the model as follows:

$$\begin{aligned} R &\sim i \times a \\ R &\sim 10 \times 3 \\ R &\sim 30 \end{aligned}$$

The scope of the rumor has declined from 100 to 30. Reduce both factors and the decline is even more dramatic. Say both are three:

$$\begin{aligned} R &\sim i \times a \\ R &\sim 3 \times 3 \\ R &\sim 9 \end{aligned}$$

The scope of the rumor has reduced from 100 when importance and ambiguity were at ten, to just nine when each is reduced to three.

The best part of the mathematical relationship is what happens when either ambiguity or importance is reduced to zero. Because anything multiplied by zero equals zero, the rumor disappears. Assume that importance is still ten, but ambiguity is completely eliminated, at zero. Here's the math:

$$\begin{aligned} R &\sim i \times a \\ R &\sim 10 \times 0 \\ R &\sim 0 \end{aligned}$$

The scope of the rumor is zero, and the rumor disappears.

Rumor Math

The Allport and Postman Model of Rumor Dynamics:

$$R \sim i \times a$$

R is the reach, intensity, duration, and reliance on a rumor;
i is the importance of the rumor to the hearer or reader, if true; and
a is the level of ambiguity or uncertainty surrounding the rumor

In other words, the reach, intensity, duration, and reliance on a rumor is roughly equivalent to the importance one attaches to the rumor if true, multiplied by ambiguity surrounding the rumor, especially surrounding its denial.

i and **a** are in a multiplicative relationship. Because anything multiplied by zero equals zero, if either **i** or **a** is zero, the rumor disappears.

In practical terms, this formula lets a crisis communicator do several very powerful things. It allows you to prioritize the kinds of information to seek and to organize communications more efficiently. Knowing that importance and ambiguity drive a rumor, you can be far more efficient in identifying what you need to do and say than if you weren't so aware. Second, knowing the formula gives clients and bosses confidence that they can influence the interpretation of events. The formula empowers you and them to focus communications in ways that can have impact on how your company is being perceived. Best of all, the formula can disarm damaging negative information, killing a rumor and preventing further damage.

In every instance where I've been able to apply the formula in a timely way (in other words, where the client could provide sufficient information to affect either the importance one would place on a rumor or its ambiguity), I have seen rumors diminish or disappear.

Putting the Formula to Work

One concrete example: Some years ago a financial services client received a call from a reporter from a very important newspaper. The reporter said that he understood that a stock trader at the firm had committed suicide over the weekend after being investigated for insider trading. The reporter was calling to confirm details and to elicit a comment from the firm; he intended to write a story for the next day's paper. We promised to get back to him, and did some checking of our own.

From the reporter's point of view, this was a very interesting story. Insider trading was a hot topic - the movie *Wall Street* had just come out. And the firm had suffered some reputational damage from other traders who had gotten into trouble in the past. This seemed like a win-win for the reporter.

But from the client's point of view such a story would be very embarrassing, especially if it wasn't true. It would call unnecessary attention to insider trading, causing further reputational damage.

In normal circumstances a company faced with such an inquiry would likely give the reporter a "no comment" response. We did not believe such an approach would help the client. Applying the $R \sim i \times a$ formula, we recognized that the likelihood of a story was high. The importance of a trader being implicated in insider trading and taking his own life was, in the context of the times and of the firm in question, moderately high, say a 7. And a routine corporate response, such as "We do not comment on investigations" or "We do not comment on personnel matters" would have made ambiguity quite high as well, say a 10. The $R \sim i \times a$ formula would have given the rumor a 70 level. The chances of the story running in the paper that day, and of being taken as fact by the financial community, was quite high. We could even predict what the story would say: TRADER NAME, a young stock trader at FIRM NAME, committed suicide Saturday while under investigation for insider trading. A spokesman for FIRM NAME said that the firm did not comment on personnel matters or investigations. This is the second time in recent years that FIRM NAME has been tarnished by insider trading... Not a pretty picture. We wanted to prevent that story from being written, if at all possible.

We did our own investigation and quickly uncovered the following: A young trader had in fact committed suicide that weekend. His father called the firm Monday morning to say that the trader had come home for the weekend and, after what the father described as an emotional family encounter, had committed suicide. We further discovered that the trader was not under any investigation for insider trading or for any other improper activity. Since the connection to insider trading was what transformed the story from a private tragedy to a public news event, we needed to understand why the reporter would have heard a rumor suggesting the link. We discovered that a routine audit of the department in which the trader worked had been initiated the day before the trader went home for the weekend. The trader himself was not implicated in any misbehavior: it was a routine audit. Just to be sure, we had the trader's boss call the father and confirm that the "emotional family encounter" was unrelated to improper trading.

We then called the reporter and told him (on background) the following: That we could confirm that the trader had committed suicide; that we understood that the suicide happened at his parents' home after an emotional family encounter; that the trader had not been under investigation for insider trading or any other improper activity; that the trader's department had been the subject of a routine random compliance audit the day before the suicide. We asked the reporter to circle back with his source and to determine to his own satisfaction whether he was hearing fact or rumor, whether someone was juxtaposing two unrelated events and attributing cause. In other words, we were trying to reduce the importance of the suicide by having the reporter understand it to be a private tragedy rather than an event emblematic of dishonesty on Wall Street. And we gave the reporter enough unambiguous facts to allow him to ask his own source probing questions.

The reporter called back later to say that further investigation on his part convinced him that the suicide was unrelated to any improper trading - and that in fact he had found no evidence of improper trading - and that as a result he would not run a story.

Applying the $R \sim i \times a$ formula, we had reduced importance to near zero, and ambiguity to zero or near zero. As a result, the rumor disappeared. Best of all, no newspaper story appeared; the family's privacy was preserved, and the firm's reputation was unharmed.

Most tellingly, the formula allowed us to break through the normal ways a company would respond to such a press inquiry, the routine "no-comment." Such a routine response would have maintained the link between the suicide and alleged improper trading, keeping importance high and virtually assuring a damaging story. By providing unambiguous context we were able to move the reporter's view of the importance of the story. But it required giving more details than companies are often comfortable disclosing, in the service of killing a negative story.

The Need for Speed

Simply applying the rumor formula, though, isn't enough. It is also important to implement the formula as early as possible. The earlier it is implemented, the more likely it is that the rumor will be controlled or even avoided. Ideally one would want to communicate quickly and fully in order to control the spread of rumors before they take on lives of their own and cause damage.

In the suicide example above, the best unambiguous refutation of the reporter's premise - the uncoupling of the suicide from alleged insider trading - would have been of little value if we had been unable to get to the reporter within his deadline, before his story appeared. Ideally, you want to get to reporters before they have become so invested in a story that it is difficult for them to pull back. And once a story appears, the damage is done and is very hard to undo.

Corporate managements, however, have little appreciation for the seemingly arbitrary and somewhat confusing deadlines under which journalists work. The Allport and Postman model empowers crisis communicators and clients to disclose more than they might otherwise be inclined to discuss in the service of controlling a rumor. But that's not enough. It's also necessary to be able to implement the Allport and Postman model in a timely way.

Fortunately, there is a formula that helps management overcome its natural reticence and to disclose quickly. It's a rough generalization, and in some ways an oversimplification. But it helps to clarify in corporate minds the necessity of acting quickly. It's the Rule of 45 Minutes, 6 Hours, 3 Days, and Two Weeks... Essentially, it's a reality-based observation of the news cycle and points at which one can influence the cycle.

This is what it means. There are specific points in a news cycle where it is more possible to kill a negative and inaccurate story, and to control and diminish a negative and partially accurate story. Miss one of these points, you will suffer reputational damage. Worse, the distance between the points grows in an almost exponential fashion, as does the spread of bad news and likely reputational damage. Here's generally how it works.

45 Minutes: Within the first 45 minutes, give or take, of a news cycle you have maximum influence on the outcome of a story. If a rumor prompts a reporter to begin working on a story, the first 45 minutes are critical. During this time, only a small number of people, and possibly only one reporter, knows about the rumor and is working on a story.

If you can follow the $R \sim i \times a$ formula to convince a reporter not to pursue a story in the first 45 minutes or so, the chances are high that the story will disappear. In fact, this is what happened with the suicide scenario mentioned above.

The realization of the need to mobilize quickly was behind the creation of the celebrated War Room during the 1992 Clinton presidential campaign. The War Room, about which a documentary film of the same name was made, existed as a rapid response mechanism to deal with rumors. When the Clinton team was able to identify and respond to rumors quickly, it was often able to kill a negative story or to turn a potentially negative story to Clinton's advantage. The 1992 Clinton campaign had a remarkably high success rate.

If, on the other hand, you are unable to respond to the reporter within the first 45 minutes or so of the

news cycle, a number of very powerful negative things happen. First, the original reporter is likely to be working the phones trying to get confirmation of the rumor, in the process retelling it to sources, who themselves can pass the rumor along to other reporters. Second, given the proliferation of all-news television, radio, and the internet, the chances are high that the story will break quickly.

Before a story breaks it may be possible, as in the suicide example, to persuade an individual reporter not to pursue it. Once the story breaks, however, many more reporters become aware of and will pursue the story. It becomes much more difficult to control the story, if for no other reason than that you will not know precisely which reporters have come upon the story. Controlling the rumor is now less a function of persuasion - a private interaction with a single reporter - than of a public statement via many reporters to your ultimate constituencies. Because the original negative rumor is now a matter of public record, refuting it may require your going public with both the media and your constituencies, involving direct communication with employees, customers, regulators, and others to refute the story and prevent damage.

6 Hours: Once a story crosses a wire service, is broadcast on television or radio, or appears on the internet, it is, at least for the moment, out of your control. It may still be possible eventually to control the rumor and even to kill the story. But now it will be much more difficult. And it takes much longer. As a general rule, once a story is broadcast you can expect to have at least six hours of negative coverage.

During these six hours, more and more reporters are coming to the story, and the story is being rebroadcast on competing media outlets. More and more people become aware of the rumor, and it grows exponentially. If a story appeared on one all-news cable television, the odds are high that it will appear on others and on the regular network or local TV news stations that night, and in drive time radio. Your customers, employees, suppliers, competitors, regulators, and local community are made aware of the rumor and can begin to act on it, to your reputational and business disadvantage.

If, during this cycle, you succeed in following the $R \sim i \times a$ formula in your public statements, the chances are high that the rumor can be controlled and the story fade away. But by then the reputational damage may have been done.

If you are unable to control the story during this phase of the cycle, however, expect several days of negative news.

3 Days: Once a story hits the daily newspapers, you can expect it to be alive for several days. During the day the story appears there is likely to be television and radio commentary about the story, as well as gossip among your customers, employees, and competitors.

The day following publication, newspapers that missed the story on day one are likely to pick it up as their own day one story. Even newspapers that carried the story on day one can carry a second-day story of reaction to the first story.

And those who come late will themselves carry their own second-day stories on day three.

During this period it is possible to invoke the $R \sim i \times a$ formula successfully. But by this time you will have suffered several days of reputational damage and will have seen a much wider range of people exposed to the negative rumor.

If you cannot control the story during these three days, expect at least two weeks of negative coverage.

2 Weeks: After the daily newspapers have had their run, there is still a further news cycle that includes weekly and semi-monthly magazines, industry trade publications, weekend newspaper wrap-up sections, and the Sunday morning talk shows. If a story has been alive for three days in the daily press it is unlikely to escape some notice from the weeklies and semi-monthlies. During this period you can still invoke the $R \sim i \times a$ formula to kill the rumor and prevent its further spread. But by then you will have suffered several weeks of negative coverage and reputational harm.

If, however, you are unable to control the story in this timeframe, expect continuous coverage, coverage

of Clinton-Lewinsky or OJ Simpson proportions. A company is unlikely to recover from this kind of scrutiny.

All of this suggests that it is a fundamental mistake for corporations to make decisions about crisis communications on their own routine timelines. They need to recognize that however arbitrary and at times irrational news media deadlines may seem, companies can control their own destinies better if they can kill rumors as early in a news cycle as possible.

Successfully employing both the $R \sim i \times a$ formula and the Rule of 45 Minutes, 6 Hours, 3 Days, and Two Weeks... can help prevent reputational damage and keep the company focused on its own agenda. Failure to recognize the power of these two formulas puts the company at the mercy of the rumor mill, gossip mongers, and the irrational-seeming dynamics of the news media.

Dynamics of the News Cycle

As a general rule, opportunities to employ the $R \sim i \times a$ formula to kill negative stories appear only at specific points in the news cycle. If you miss one point, your chance of killing the story is very low until the next point in the news cycle.

These points are within:

- 45 Minutes
- 6 Hours
- 3 Days
- 2 Weeks

Use the formulas ($R \sim i \times a$; the Rule of 45 Minutes, 6 Hours, 3 Days, and Two Weeks) and notice how different the outcome can be from the traditional "no comment" way of addressing unpleasantness. It will require that the client have the courage to take a bit of a leap. But it's a leap worth taking.

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